UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

23505

7590

05/12/2010

OHADMAN MADE

CONLEY ROSE, P.C.

David A. Rose P. O. BOX 3267 HOUSTON, TX 77253-3267 SHABMAN, MARK A

ART UNIT PAPER NUMBER

EXAMINER

2856

DATE MAILED: 05/12/2010

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.

10/597,844 07/10/2007 Anatoliy Kosterev 1789-13902 7007

TITLE OF INVENTION: SELECTIVITY ENHANCEMENT IN PHOTOACOUSTIC GAS ANALYSIS VIA PHASE-SENSITIVE DETECTION AT HIGH MODULATION FREQUENCY

APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$300	\$0	\$1055	08/12/2010

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), to: Mail Mail Stop ISSUE FEE

Commissioner for Patents P.O. Box 1450 Alexandria, Virginia 22313-1450

or <u>Fax</u> (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where m

appropriate. All further indicated unless correcte maintenance fee notifica	ed below or directed oth	ng the Patent, advance onerwise in Block 1, by (rders and notification of a) specifying a new corr	maintenance fees respondence address	will be s; and/o	mailed to the current r (b) indicating a sepa	correspondence address as rate "FEE ADDRESS" for
CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)				Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.			
23505	7590 05/12	/2010					niccion
CONLEY ROSE, P.C. David A. Rose P. O. BOX 3267				Certificate of Mailing or Transmission I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.			
HOUSTON, TX	77253-3267						(Depositor's name)
							(Signature)
			L				(Date)
APPLICATION NO.	FILING DATE		FIRST NAMED INVENTO)R	ATTC	RNEY DOCKET NO.	CONFIRMATION NO.
10/597,844	07/10/2007	•	Anatoliy Kosterev		•	1789-13902	7007
TITLE OF INVENTION MODULATION FREQU		ANCEMENT IN PHOTO	ACOUSTIC GAS ANAI	LYSIS VIA PHASE	-SENS1	TIVE DETECTION A	AT HIGH
APPLN. TYPE	SMALL ENTITY	ISSUE FEE DUE	PUBLICATION FEE DUI	E PREV. PAID ISSU	JE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	YES	\$755	\$300	\$0 		\$1055	08/12/2010
EXAM	IINER	ART UNIT	CLASS-SUBCLASS				
SHABMAN	I, MARK A	2856	073-024020				
CFR 1.363). Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached. "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required. 3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON			(1) the names of up to 3 registered patent attorneys or agents OR, alternatively, (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. THE PATENT (print or type) data will appear on the patent. If an assignee is identified below, the document has been filed fo				
recordation as set fort (A) NAME OF ASSIG	h in 37 CFR 3.11. Comp GNEE	oletion of this form is NO	T a substitute for filing a (B) RESIDENCE: (CIT	n assignment. 'Y and STATE OR	COUNT	TRY)	up entity 📮 Government
4a. The following fee(s): Issue Fee	are submitted:	41	4b. Payment of Fee(s): (Please first reapply any previously paid issue fee shown above) A check is enclosed.				
☐ Publication Fee (No small entity discount permitted)			Payment by credit card. Form PTO-2038 is attached.				
Advance Order - # of Copies			The Director is here overpayment, to Dep	by authorized to cha posit Account Numb	rge the er	required fee(s), any def (enclose ar	ficiency, or credit any nextra copy of this form).
5. Change in Entity Sta	*	· · · · · · · · · · · · · · · · · · ·	_				TD 1.27() (2)
	s SMALL ENTITY state		b. Applicant is no lo	-			R 1.27(g)(2). e assignee or other party in
interest as shown by the	records of the United Sta	tes Patent and Trademark	COffice.	i die applicant, a reg	,istered	attorney of agent, of th	e assignee of other party in
Authorized Signature				Date			
Typed or printed name				-			
This collection of inform an application. Confiden submitting the completed this form and/or suggesti Box 1450, Alexandria, V Alexandria, Virginia 223	tiality is governed by 35 d application form to the ions for reducing this bu 7irginia 22313-1450. DC	CFR 1.311. The information U.S.C. 122 and 37 CFR USPTO. Time will vary rden, should be sent to the DONOT SEND FEES OR	on is required to obtain o 1.14. This collection is e depending upon the ind the Chief Information Offi COMPLETED FORMS	r retain a benefit by estimated to take 12 lividual case. Any c cer, U.S. Patent and TO THIS ADDRES	the pub minute: ommen l Trader S. SEN	lic which is to file (and s to complete, includin ts on the amount of tin nark Office, U.S. Depa D TO: Commissioner f	by the USPTO to process) g gathering, preparing, and ne you require to complete utment of Commerce, P.O. or Patents, P.O. Box 1450,

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450

P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.	
10/597,844	07/10/2007	Anatoliy Kosterev	1789-13902	7007	
23505 75	90 05/12/2010		EXAMINER		
CONLEY ROSE, P.C.			SHABMAN	I, MARK A	
David A. Rose			ART UNIT	PAPER NUMBER	
P. O. BOX 3267 HOUSTON, TX 77253-3267			2856 DATE MAILED: 05/12/201	0	

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)

(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 402 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 402 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

	Application No.	Applicant(s)	Applicant(s)	
	10/597,844	KOSTEREV, ANATOLIY		
Notice of Allowability	Examiner	Art Unit		
	MARK SHABMAN	2856		
The MAILING DATE of this communication appear All claims being allowable, PROSECUTION ON THE MERITS IS herewith (or previously mailed), a Notice of Allowance (PTOL-85) NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIPLY of the Office or upon petition by the applicant. See 37 CFR 1.313 1. This communication is responsive to amendments filed 10	(OR REMAINS) CLOSED in or other appropriate common GHTS. This application is and MPEP 1308.	n this application. If not included unication will be mailed in due course. T		
2. ☑ The allowed claim(s) is/are <u>1,3-14 and 16-21</u> .				
 Acknowledgment is made of a claim for foreign priority ur a) All b) Some* c) None of the: 1. Certified copies of the priority documents have 2. Certified copies of the priority documents have 3. Copies of the certified copies of the priority documents have International Bureau (PCT Rule 17.2(a)). 	been received. been received in Application	on No	the	
* Certified copies not received:				
Applicant has THREE MONTHS FROM THE "MAILING DATE" noted below. Failure to timely comply will result in ABANDONN THIS THREE-MONTH PERIOD IS NOT EXTENDABLE. 4. A SUBSTITUTE OATH OR DECLARATION must be subm INFORMAL PATENT APPLICATION (PTO-152) which give	IENT of this application. itted. Note the attached EX	AMINER'S AMENDMENT or NOTICE O		
5. CORRECTED DRAWINGS (as "replacement sheets") mus	et be submitted.			
(a) \square including changes required by the Notice of Draftspers	on's Patent Drawing Review	v (PTO-948) attached		
1) ☐ hereto or 2) ☐ to Paper No./Mail Date				
 (b) ☐ including changes required by the attached Examiner's Paper No./Mail Date Identifying indicia such as the application number (see 37 CFR 1) 	.84(c)) should be written on t	he drawings in the front (not the back) of		
each sheet. Replacement sheet(s) should be labeled as such in the first of the sheet of the shee	sit of BIOLOGICAL MAT	ERIAL must be submitted. Note the		
Attachment(s) 1. ☐ Notice of References Cited (PTO-892) 2. ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 3. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material	6. ☐ Interview S Paper No. 7. ☐ Examiner's —	formal Patent Application ummary (PTO-413), 'Mail Date Amendment/Comment Statement of Reasons for Allowance		

DETAILED ACTION

Allowable Subject Matter

Claims 1, 3-14 and 16-21 are allowed.

The following is an examiner's statement of reasons for allowance: As noted in the interview summary from 10 March 2010, the prior art of record (in particular Hammerich) fails to disclose the newly added limitations of claims 1 and 14. In particular, the relaxation rate of the Hammerich reference is greater than the modulation frequency as opposed to lower than the modulation frequency as is claimed. As all dependent claims ultimately depend from either claim 1 or 14, they are deemed allowable for similar reasons.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MARK SHABMAN whose telephone number is (571)270-3263. The examiner can normally be reached on M-F 8:00am - 4:30pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number: 10/597,844 Page 3

Art Unit: 2856

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hezron Williams/ Supervisory Patent Examiner, Art Unit 2856

/M. S./ Examiner, Art Unit 2856